



Montana Fish, Wildlife & Parks

Hunting Season / Quota Change Supporting Information

Species: ELK

Region: 3

Hunting District: 311

Year: 2017

1. Describe the proposed season / quota changes and provide a summary of prior history (i.e. prior history of permits, season types, etc.).

FWP proposes to institute a shoulder season after general rifle season in the north half of HD 311 beginning with the 2017 season. This is to include all lands, public and private, north of Highway 84. The shoulder season will expand opportunity on the general elk license and increase the 311-00 Elk B antlerless licenses to 1,000 from the current 500 (not valid on National Forest land and only valid north of Highway 84 from the end of rifle season until February 15th). The current season allows BTB/Antlerless hunting on the general elk license and 500 antlerless elk B licenses not valid on National Forest lands.

Because of the extenuating, special-circumstance situation as described below, this proposal is coming outside of the usual biennial December-February proposal cycle. As such it is not listed in the published 2017 deer/elk/antelope regulations, and awareness of the season will depend on public information outreach through FWP's Communication and Education division.

This proposal responds to a marked and sudden change in elk distribution that has been difficult to manage using traditional options. Starting in 2009, but worsening excessively in 2015-2017, 1,800+ elk began leaving their former high-elevation native winter range south of Highway 84 in favor of the low-elevation farmlands north of Highway 84: farms, ranches, and dairies that haven't seen elk for generations. This elevational migration generally coincides with snow, so farmers were not often able to use general season hunters to control elk distribution and numbers though the farmers readily accept public hunters without fee. In response to game damage and brucellosis concerns, MFWP has authorized dozens of actions under existing protocols: hunts, management seasons, herders, propane cannons, stack yards, landowner technical assistance, etc. These actions were ineffective due to the large number of elk and the large spatial scale of their new distribution.

Although elk are not over objective in HD 311, the shoulder season guidelines allow for a shoulder season under these circumstances. The guidelines state:

FWP may also propose and the commission may adopt shoulder seasons to address specific local circumstances. Examples of such local circumstances include areas where elk are absent during the general hunting season or the landscape is dominated by multiple small ownership parcels making it difficult to safely harvest elk or respond to game damage.

Moreover, this proposal is an unusual, special-circumstance case requiring attention outside the usual biennial season-setting process:

- 1) Elk distribution changed suddenly and dramatically in winter 2015-2016 and again 2016-2017. More than 1,800 elk moved to places they had never been before, and places where this high density created extensive damage to local landowners and farmers.
- 2) Two years of game damage and management seasons were ineffective in handling brucellosis and game damage concerns, frustrating landowners and hunters.
- 3) Elk in this area are seropositive for brucellosis (22.5% seroprevalence in one herd), and HD 311 is within the brucellosis Designated Surveillance Area. Ranchers and dairies have observed elk in and near their cows and seek tools to aid in their separation.
- 4) There is strong landowner and MFWP staff support for this change because it is expected to help landowners use hunting to at least partially resolve game damage and brucellosis concerns.

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objective is to reduce game damage and reduce brucellosis risk by changing elk distribution through prescribed hunting pressure. With elk not present on this portion of the landscape during the general hunting season, this change allows hunters and landowners to work together to manage elk when they are actually present. Increased hunting pressure north of Highway 84 is expected to move elk away from conflict areas to areas of higher tolerance.

There is no explicit harvest objective. The number of elk harvested will relate to the number of elk available in the portion of the hunting district north of Highway 84 – more in some years, less in others.

Shoulder seasons are expected to reduce the frustration experienced by landowners and hunters during ineffective and challenging game damage hunts. Shoulder seasons have fewer restrictions, so hunters may move (with permission) to different landowners, or hunt throughout the season as elk are present.

3. How will the success of this proposal be measured?

The proposal will be deemed successful if:

- Winter elk distribution aligns with areas of higher tolerance. Elk distribution will be quantified during winter flights that will count elk groups and document their spatial location. Tolerance is a qualitative concept, but is measurable through documented landowner complaints.
- Game damage and brucellosis complaints are reduced from 2015-2017 levels. Currently, 20-40 landowners issue complaints, resulting in 5-6 game damage hunts across a dozen properties or more. MFWP expects this proposal will eliminate game damage hunt requests. Requests for stackyard fencing are expected to continue, and after February 15, there may be requests for brucellosis or game damage herders/hazers to prevent comingling of elk and cattle and to protect key crops depending on weather and elk behavior in response to the hunt. Brucellosis and game damage complaints are measurable through MFWP's databases.

- There is improved hunter success with fewer complaints. Game damage hunts rarely exceeded 20-40 elk harvested, even in years with high availability. Understanding there is no specific harvest objective, MFWP expects total elk harvest will increase (if/when elk are available) under the shoulder season. This is measurable through the hunter harvest estimates as well as the number of complaints from hunters fielded by MFWP staff.

What is the current population's status in relation to the management objectives? (i.e., state objectives from management plan if applicable; provide current and prior years population survey, harvest or other pertinent information).

The 2005 Elk Plan objective for this area is as follows:

Maintain the number of elk observed during post-season aerial trend surveys within 20% of 2,700 elk (2,160-3,240). Individual herd count objectives are as follows:

- a. North end of the Spanish Peaks – 2,500 elk.
- b. Gallatin Canyon from Karst to Big Sky Spur Road – 200 elk.

Counts in the district fall within objective (2,878 in a collaborative MFWP/Flying D Ranch count winter 2017, and approximately 200 elk in HD 311 which do not receive a dedicated count but are anecdotally recorded along with bighorn sheep flights on Gallatin Canyon HD 310 elk flights). However, three major changes have occurred on the landscape since the writing of the 2005 Elk Plan:

- 1) The 2005 Elk Plan referred to the “north end of the Spanish Peaks” and at the time of writing, this included the grassland, woodland, and shrubland/steppe associated with the foothills of the Spanish Peaks. The 2,500 elk objective referred to the native habitat elk were using at the time: it is an unreasonable objective for the agricultural land north of Highway 84. (See Figure 3 for habitat map)
- 2) A third herd unit, here called the Red Mountain herd, has developed in HD 311 north of Highway 84, east of Highway 287, and west of the Madison River. The first documentation of this herd during summer antelope flights was 104 elk in summer 2009. This herd has since grown to 743 elk summer 2016. This is a growth rate of 34% per year ($\lambda=1.34$). The Red Mountain herd west of the Madison River is semi-distinct from the north end of the Spanish Peaks herd east of the Madison River, and data suggests the Red Mountain herd does not associate with any National Forest lands. In 2014-2015, there were 5 radio-marked cow elk from the Red Mountain herd and none crossed the river to the east, nor did any of the 14 radio-marked cow elk from the north end of the Spanish Peaks cross the river to the west. In 2015-2016, 2 of 7 marked cow elk did move west across the Madison River for some of the winter, but then returned to summer at the north end of the Spanish Peaks.
- 3) Since the 2005 Elk Plan, brucellosis has been detected and at relatively high levels (22.5% seroprevalence for the herd at the north end of the Spanish Peaks; 5% seroprevalence for the Red Mountain herd). MFWP research staff have an ongoing surveillance effort in this area involving capturing, testing, and marking individual elk. Responding to the change in elk movement north across Highway 84, the brucellosis Designated Surveillance Area moved north to Interstate 90, and landowners' elk tolerance became less due to brucellosis concerns. Capture results, more information about brucellosis testing, and radio-collar results appear in the annual brucellosis reports published through MFWP's research division.

4. Provide information related to any weather/habitat factors that have relevance to this change (i.e. habitat security, hunter access, vegetation surveys, weather index, snow conditions, temperature / precipitation information).

The alignment of dichotomous land uses north vs. south of Highway 84 create challenging issues for managing free-ranging wildlife (see maps, attached). North of Highway 84 are scores of small agricultural properties (many <1,000 acres) representing locally owned and operated farms, ranches, and dairies. South of Highway 84, the largest 4 landowners are the U.S. Forest Service (>100,000 acres), The Flying D Ranch (>100,000 acres), the BLM (Beartrap Canyon; about 7,500 acres) and Montana State University's agricultural experiment station (about 10,000 acres, but approximately 1/3 of this lies north of Highway 84). Most of the elk herd historically utilized the Flying D Ranch and U.S. Forest Service, with little use observed on the BLM or MSU portions.

Beginning in 2009, the herd of 1,500-2,000 elk began expanding its range north of Highway 84. The original cause of this expansion may relate to snow conditions, forage availability, and predators. Elk have returned every year: the lands north of Highway 84 are lower-elevation, hold less snow, and the agricultural fields present rich foraging opportunities. Agricultural operators north of Highway 84 routinely issue game damage complaints. Responses include game damage hunts, game damage herders, and a brucellosis herder. Game damage responses may have inadvertently worsened distribution issues in 2015-2016, when damage hunts may have pushed elk north to novel lands instead of south back to areas of higher tolerance. Unfortunately, elk found unprotected stack yards and leave grain in fields damaged by a late-fall hail, resulting in herd memory of high-value forage to the north. Landowners north of Highway 84 would tolerate some elk, but the large herds of 1,800+ can result in extreme impact to small producers' unfenced stackyards, in a cattle feedline, on the winter cattle pasture, and when winter wheat turns green. Brucellosis presence reduces landowner tolerance as cattle ranchers and dairies are increasingly worried when they note this number elk in and around their cattle.

These elk distribution changes have occurred over a large spatial area, including local communities around Willow Creek, Harrison Lake, Norris, Black's Ford, Three Forks, Amsterdam, Anceny, and Churchill. All these landowners do not know each other, and there is no local watershed group comprehensive enough to aid in communication across them all. MFWP and DOL attempted to meet with local landowners twice during the summer and fall, yet landowners were not able to unify and cooperate to form effective management seasons, as in other areas affected by elk population and distribution issues.

Most landowners north of Highway 84 easily meet game damage eligibility criteria. They are eager to use hunters to address elk presence on their lands, but are stymied by weather in many years. Perhaps more years than not, elk are just not available during the 5-week general season. The proposed shoulder season would allow the landowners to use hunters when elk are actually present on their lands.

5. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments.

Extensive public outreach has occurred on this proposal. First, it has been vetted with the flight reports for HD 311 elk through biologist Julie Cunningham's e-mail list serve. This list serve of >100 individuals includes landowners, landowner/watershed groups, outfitters, individual local sportsmen, representatives from 2 sportsmen's groups, MFWP game wardens, the local MFWP commissioner, and representatives from other agencies (USFS, BLM, NRCS, etc). The proposal has been discussed at length with Headwaters Sportsmen's group. The proposal has been discussed with many of the HD 311 landowners who have had game damage complaints.

Negative comments include concerns about how hunting an elk herd on private lands during the post-season could contribute to fewer elk on the National Forest the next fall, concerns about employing a shoulder season in an area not technically over Elk Plan objective, and concerns about employing a shoulder season instead of addressing complaints through game damage.

Positive comments are that a shoulder season may work better than the game damage hunts which frustrated landowners and sportsmen alike, that the shoulder season should represent additional opportunity to hunters, and landowners appreciate the opportunity to use hunters to manage elk herds causing damage. Landowners are nearly unanimously positive about this change, believing this season will be helpful to them to alleviate game damage and brucellosis concerns to at least some degree.

Submitted by: Julie Cunningham

Date: April 26, 2017

Approved: _____
Regional Supervisor/Date

Disapproved / Modified by: _____
Name / Date

Reason for modification: _____

HD 311 Stewardship and Cadastral

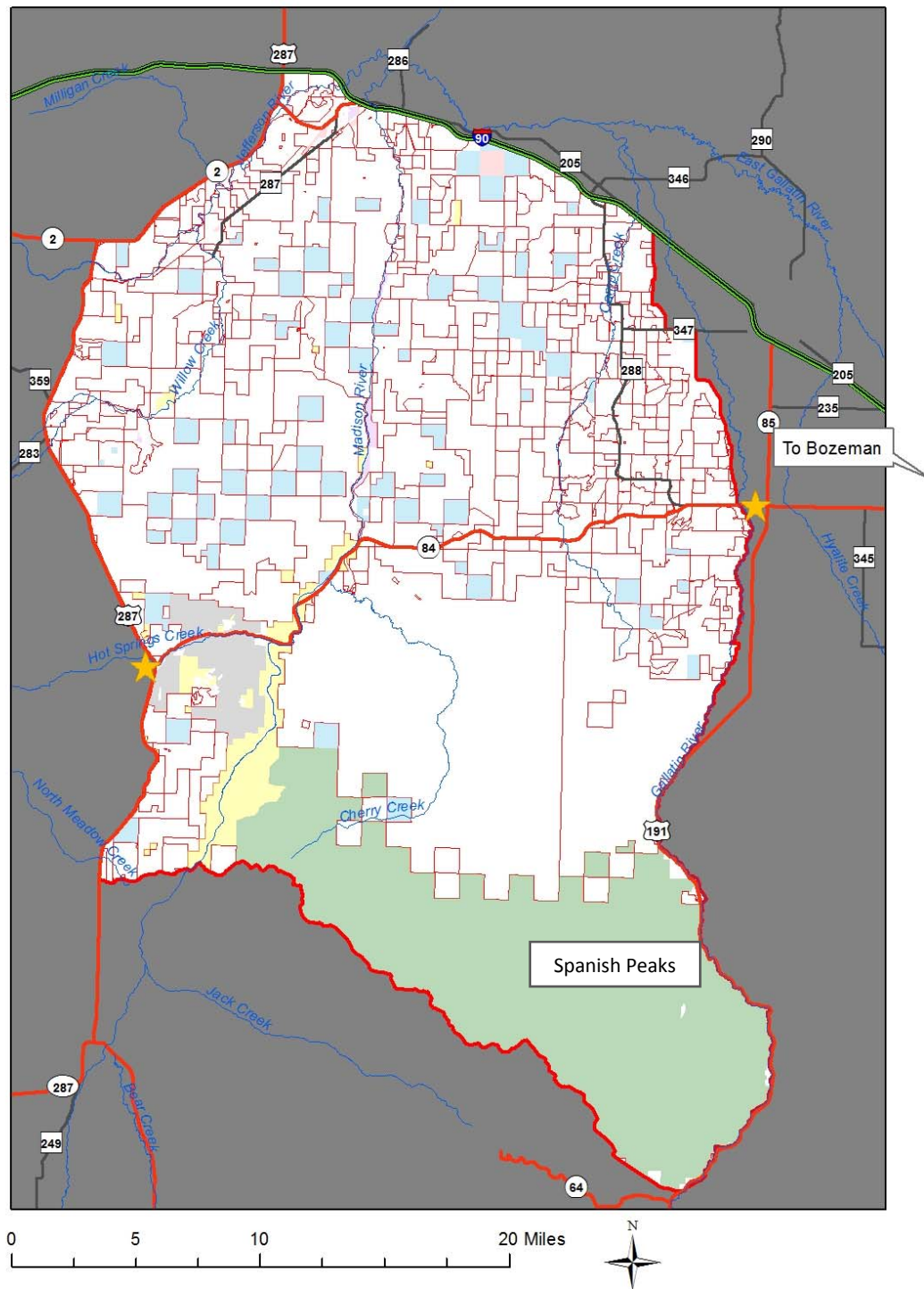


Figure 1: HD 311 displayed with public land ownership (green = National Forest, blue = State of Montana Department of Natural Resources and Conservation, yellow = Bureau of Land Management), private land ownership in white with red outline, major highways and streams. Highway 84, the proposed north-south dividing line, is marked and highlighted with orange stars where it bisects Hunting District 311.

HD 311 Stewardship and Cadastral

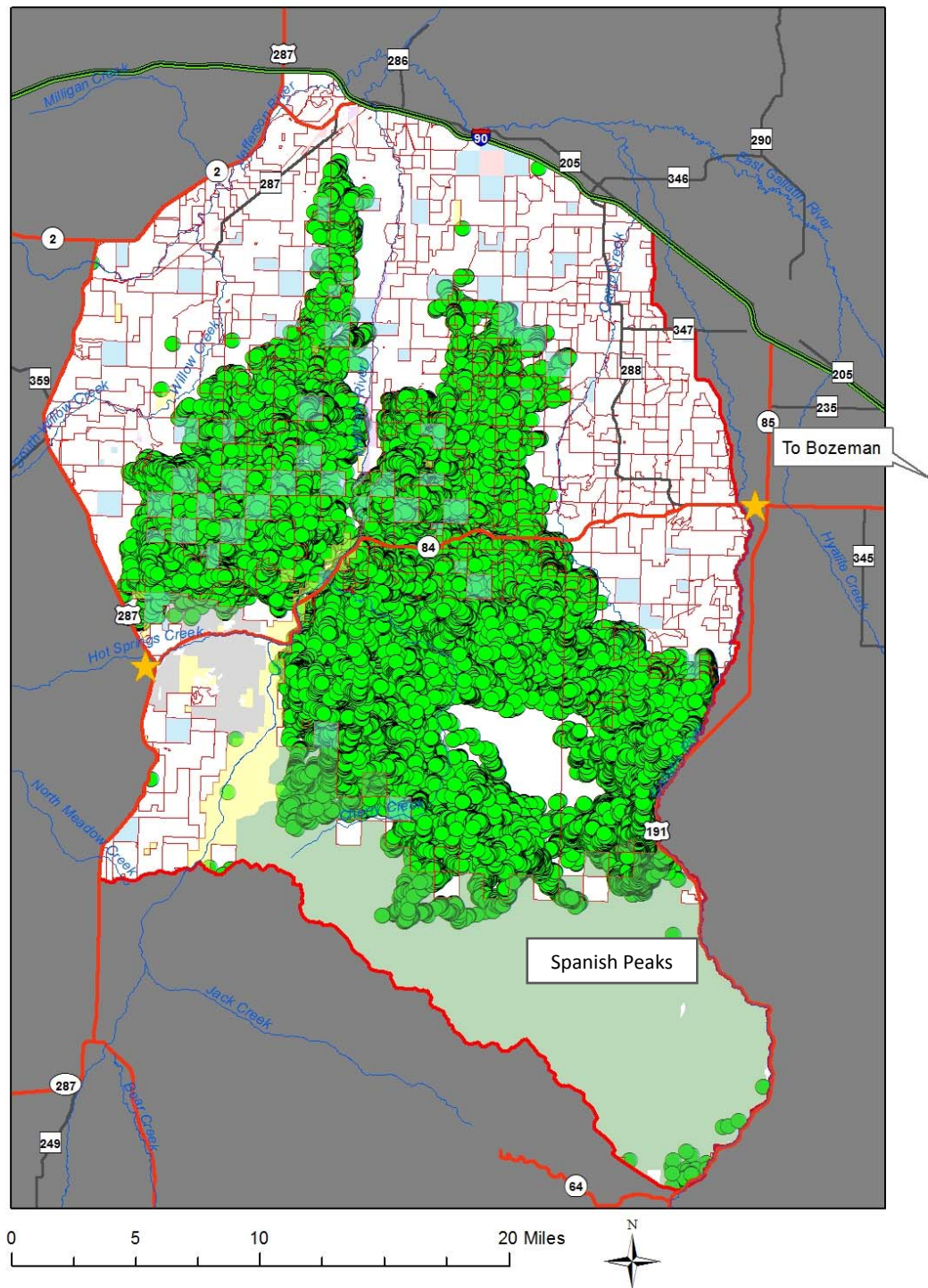


Figure 2: HD 311 with landownership overlaid with elk locations (green circles) taken from GPS collars or from flight data. Circles do not fully represent the extent of the distribution and the locations are year-round, summer through winter.

HD 311 Land Cover

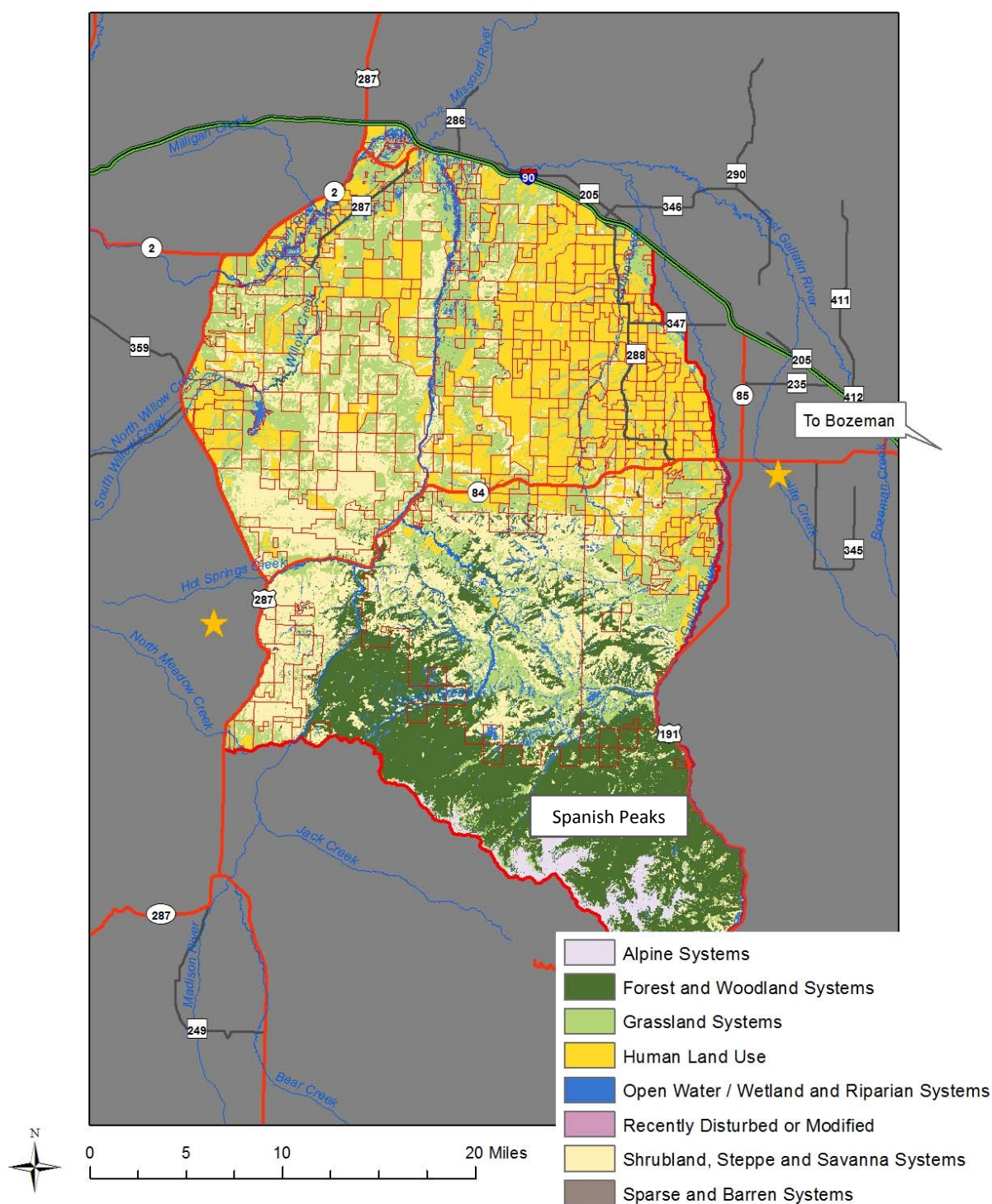


Figure 3: HD 311 showing cadastral and land cover using Level 1 MSDI Land Cover/Land Use database. Human use is defined as: “developed areas in rural or urban settings (including roads), strip mines and gravel pits, and agricultural lands.